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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,963	06/23/2000	Nicholas W. Dawes	551P07US-1	9819
20779	7590	03/28/2005	EXAMINER LEE, CHI HO A	
SHAPIRO COHEN P.O. BOX 3440 STATION D OTTAWA, ON K1P6P1 CANADA			ART UNIT 2663	
DATE MAILED: 03/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/599,963

**Applicant(s)**

DAWES ET AL.

**Examiner**

Andrew Lee

**Art Unit**

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 13-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-5 and 23-26 is/are allowed.  
6) ☒ Claim(s) 13-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Hefel et al U.S. Patent Number 5,563,875.

Re Claim 22, fig. 4 teaches a Node A (common node) sending signals to Node B & C (first and second) to measure the round trip delays (See col. 6, lines 6-38) to compute the transmit time, wherein the RTD (round trip delay) between Node A and B halved indicates interim transit time (jitter in transit delay) and RTD between Node A and C halved; fig. 6 step 67 teaches calculating the link transmit times between source Node A to destination Node C, whereby by adding the interim transit times indicates the total transmit time to the destination (See col. 7, lines 50-65).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2663

4. Claims 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hefel et al U.S. Patent Number 5,563,875 in view of Grohn et al U.S. Patent Number 6,405,337 and further in view of Larson U.S. Patent Number 4,569,042.

Re Claims 13, 18, Hefel teaches in fig. 4, a Node A (common node) sending signals to Node B (first and second) to measure the round trip delays to compute the transmit time (See Abstract & col. 5, lines 46 +) wherein the total transit time calculated is the total jitter between adjacent nodes wherein the measurement can be analyzed to localize congestion or identify failed resources.

Hefel fails to explicitly teach that the transmit delays are measured at different times. However, Grohn teaches that repeated round-trip measurement are performed because the round-trip delay over the communications network can change over time, hence repeatedly measuring the transit time would have reflected the condition of the network (See col. 5, lines 10-15). Therefore, one skilled in the art would have been motivated to measure the transit delay at different times to adaptive to the current condition of the network. Hefel also fails to explicitly teach calculating a jitter among the plurality of time delay measurements and determining if the jitter exceeds a predetermined threshold value. However, Larson teaches a difference calculator 204 and the delay calculator wherein the value of the estimated one-way delay computed by the delay calculator 205 is compared with a value of a predetermined maximum acceptable one-way delay (See col. 7, lines 34-68). One skilled in the art would have been motivated by Larson to compare the jitter with the predetermined threshold value to determine whether the route is acceptable or reliability (claim 18). Therefore, it would

have been obvious to one ordinary skilled to combine the teaching of Grohn into the teaching of Hefel.

Re Claims 14, 19, refer to Claim 13, fig. 4, wherein Node A (a common node) transmits and receives a wraparound message 44 to Node B (the first node) wherein Node A to determine the RTD and halved to determine the transmit time (Steps a-c, g) in view of Grohn, Node A repeats the wraparound test to determine the transmit time in another time period, whereby by subtracting the repeated wraparound test between the same node would indicate condition of the path  $J(A,D,t)=D(A,D,t_2) - D(A, D, t_1)$ .

Re Claim 15, refer to Claim 22, wherein adding the determined interim transmit time to calculate the total transmit time between the source and destination.

Re Claim 16, 17, fig. 4 is a hierarchical network and is a portion of the mesh network, i.e., SNA (See col. 1, line 60) wherein the subnetworks are form between the nodes, i.e., Node A to Node B & Node A to Node C.

Re Claim 20, Node A is directed connected to Node B.

Re Claim 21, Node C is indirectly connected to Node A.

### ***Response to Arguments***

5. Applicant's arguments filed 1/13/05 have been fully considered but they are not persuasive.

Re Claim 22, Applicant argues that the "jitter is an additional calculation based on a previous calculation". However this limitation is not claimed. Furthermore, by adding all the intermediate transmit times between the source and destination indicates the total transit time (the total jitter) is calculated.

Re Claim 13, 19, Applicant argues that the "jitter...measures the variance of the delay" as described in the Specification. However, this limitation is not claimed.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 571-272-3130. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANDY LEE  
PATENT EXAMINER

AI  
3/16/05

